

CLAIMS

1. A method of providing a connection service between a terminal and a data network, said terminal being arranged to be connected to a telephone network and
5 said telephone network being connected to said data network through an interface, said method comprising the steps of:

in response to said terminal dialling an interface telephone number from a terminal telephone number, creating a connection through said telephone network
10 between said terminal and said interface;

said interface ascertaining said dialled interface telephone number from said telephone network;

15 said interface checking that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said connection service;

in the event that said dialled interface telephone number is one of said
20 valid interface telephone numbers, said interface allocating a data network address to said terminal and transmitting said address to said terminal; and

said interface providing a connection between said terminal and said data network .

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2. A method as claimed in claim 1 wherein in said step of said interface providing a connection between said terminal and said data network, said connection is associated with a predefined set of data network addresses in said data network.

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3. A method as claimed in claim 2 in which each said valid interface telephone number has an associated predefined set of data network addresses.

4. A method as claimed in claim 3 further including the step of arranging a telephone network billing system to charge for access to each said valid interface telephone number at an associated pre-defined tariff.
5. A method as claimed in any preceding claim in which, in the step of creating a connection through said telephone network between said terminal and said interface, said telephone network is arranged to associate said dialled interface telephone number with a further interface telephone number, said further interface telephone number being used to complete said connection.
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6. A method as claimed in any preceding claim, further comprising the steps of:
said interface ascertaining said terminal telephone number;
- 15 said interface checking that said terminal telephone number is not one of one or more invalid terminal telephone numbers associated with said connection service; and
in the event that said terminal telephone number is one of said one or
20 more invalid terminal telephone numbers, said interface denying a connection between said terminal and said data network.
7. A method as claimed in any preceding claim, in which said interface is comprised by data network access means connected to both said telephone
25 network and said data network and authentication means, including the steps of:
said data network access means ascertaining said dialled interface telephone number from said telephone network;
- 30 passing said ascertained dialled interface telephone number to said authentication means;

said authentication means checking that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said connection service; and

5 in the event that said dialled interface telephone number is one of said valid interface telephone numbers, said authentication means causing said data network access means to allocate a data network address to said terminal and to transmit said address to said terminal.

10 8. A method of providing a connection service between a terminal and a data network, said terminal being arranged to be connected to a telephone network and said telephone network being connected to said data network through an interface, said method comprising the steps of:

15 in response to said terminal dialling an interface telephone number from a terminal telephone number, said interface receiving a connection through said telephone network from said terminal;

20 said interface ascertaining said dialled interface telephone number from said telephone network;

25 said interface checking that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said connection service;

30 in the event that said dialled interface telephone number is one of said valid interface telephone numbers, said interface allocating a data network address to said terminal and transmitting said address to said terminal; and

35 said interface providing a connection between said terminal and said data network .

9. A method as claimed in claim 8 wherein in said step of said interface providing a connection between said terminal and said data network, said

connection is associated with a predefined set of data network addresses in said data network.

10. A method as claimed in claim 9 in which each said valid interface
5 telephone number has an associated predefined set of data network addresses.

11. A method as claimed in any one of claims 8 to 10, further comprising the steps of:

said interface ascertaining said terminal telephone number;

10 said interface checking that said terminal telephone number is not one of one or more invalid terminal telephone numbers associated with said connection service; and

15 in the event that said terminal telephone number is one of said one or more invalid terminal telephone numbers, said interface denying a connection between said terminal and said data network.

12. A method as claimed in any one of claims 8 to 11, in which said interface
20 is comprised by data network access means connected to both said telephone network and said data network and authentication means, including the steps of:

said data network access means ascertaining said dialled interface telephone number from said telephone network;

25 passing said ascertained dialled interface telephone number to said authentication means;

30 said authentication means checking that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said connection service; and

 in the event that said dialled interface telephone number is one of said valid interface telephone numbers, said authentication means causing said data

network access means to allocate a data network address to said terminal and to transmit said address to said terminal.

13. A method of providing a connection service between a terminal and a data network, said terminal being arranged to be connected to an access network and said access network being connected to said data network through an interface, said method comprising the steps of:

in response to said terminal calling an interface access network address
10 from a terminal access network address, said interface receiving a connection through said access network from said terminal;

15 said interface ascertaining an access network connection route attribute from said access network;

20 said interface checking that said access network connection route attribute is one of one or more valid access network connection route attributes associated with said connection service;

25 in the event that said access network connection route attribute is one of said valid access network connection route attributes, said interface allocating a data network address to said terminal and transmitting said address to said terminal; and

30 said interface providing a connection between said terminal and said data network .

14. An interface for providing a connection service between a terminal and a data network, said terminal being arranged to be connected to a telephone network and said telephone network being connected to said data network through said interface, said interface comprising:

means arranged to receive a connection through said telephone network from said terminal in response to said terminal dialling an interface telephone number from a terminal telephone number;

- 5 means arranged to ascertain said dialled interface telephone number from said telephone network;

- means arranged to check that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said
10 connection service;

- means responsive to said checking means arranged to allocate a data network address to said terminal and transmitting said address to said terminal in the event that said dialled interface telephone number is one of said valid interface
15 telephone numbers; and

means arranged to provide a connection between said terminal and said data network .

- 20 15. An interface as claimed in claim 14 wherein said means arranged to provide a connection between said terminal and said data network, is arranged to associate said connection with a predefined set of data network addresses in said data network.

- 25 16. An interface as claimed in claim 15 in which each said valid interface telephone number has an associated predefined set of data network addresses.

17. An interface as claimed in any one of claims 14 to 16, further comprising:

- 30 means arranged to ascertain said terminal telephone number;

means arranged to check that said terminal telephone number is not one of one or more invalid terminal telephone numbers associated with said connection service; and

means arranged to deny a connection between said terminal and said data network in the event that said terminal telephone number is one of said one or more invalid terminal telephone numbers.

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